

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

SCANSOFT, INC.,

Plaintiff

v.

VOICE SIGNAL TECHNOLOGIES, INC.,
LAURENCE S. GILICK, ROBERT S.
ROTH, JONATHAN P. YAMRON, and
MANFRED G. GRABHERR,

Defendants

C.A. No. 04-10353-PBS

**SCANSOFT’S [PROPOSED] REPLY IN FURTHER SUPPORT OF
MARKMAN CLAIM CONSTRUCTION OF THE ‘966 PATENT**

I. THE METHOD OF CLAIM 1 CAN BE PERFORMED ANYWHERE

VST’s fundamental mistake is in focusing its claim construction analysis on the specification and extrinsic evidence, bypassing the claims altogether. But claim construction begins and ends with the words of the claims. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) (“First, we look to the words of the claims themselves, both asserted and nonasserted, to define the scope of the patented invention”). As argued below, Claims 1-6 do not limit the location of the voice recognizer, and neither does the rest of the evidence.

A. The Claim Wording Does Not Limit Location or Structure

Claim 1 of the ‘966 patent is directed to a “speech recognition method for a mobile telecommunications system.” The claim is not for a telecommunications system itself or for a particular apparatus configured for speech recognition. As a matter of well-established law, dating back over 100 years to oft-cited Supreme Court precedent, method claims are not restricted to particular structural limitations:

That a process may be patentable, irrespective of the particular instrumentalities used, cannot be disputed. If one of the steps of a process be that a certain substance is to be reduced to a powder, it may not be at all material what instrument or machinery is used to effect that object, whether a hammer, a pestle and mortar, or a mill. Either may be pointed out; but if the patent is not confined to that particular tool or machine, the use of the others would be an infringement, the general process being the same.

Cochrane v. Deener, 94 U.S. 780, 787-88 (1876).

As such, the claimed method does not require that the voice recognizer receive commands from the user over a wireless network or that it be located at or near the central switch, as VST contends. Nothing in the claim specifies the location or the instrumentality.¹

Moreover, the phrase “speech recognition method for a mobile telecommunications system” appears in the preamble of Claim 1. Such a phrase in a preamble states an intended purpose or environment for the method, not a structural limitation. *See Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002). A preamble does not limit the claim when the body of the claim sets forth the complete invention. That is, when the preamble does not set forth any of the particular steps of the claimed method, then it cannot be used to impose limitations on the claim. *Schumer v. Laboratory Computer Systems, Inc.*, 308 F.3d 1304, 1310 (Fed. Cir. 2002) (holding that district court erred when it read a preamble for a method claim to require that a device performing the method have certain structures).

Here, nothing in the preamble of Claim 1 sets forth how the voice recognizer operates or the steps required to process commands for voice activated dialing. All steps of the invention appear in the body of the claim (*e.g.*, “receiving a command,” “determining” the command type,

¹ In contrast, other claims in the ‘966 patent and in the related patents are directed to, *e.g.*, a “voice recognition system for use in a non-wireline telecommunications switch.” Contrary to VST’s assertion, the doctrine of claim differentiation certainly applies across method and product claims. *See Syngenta Seeds, Inc. v. Monsanto Co.*, No. 02-1331-SLR, 2004 WL 2758673 at *1 (D. Del., Nov. 19, 2004).

etc.). Accordingly, VST cannot rely on the preamble to require that the telecommunication system itself (as VST interprets that term), as distinct from the speech recognition system, perform any of the required steps.

It follows from this analysis that “for” does not require that the claimed method is maintained or used by a telecommunications system, as VST argues. Rather, “for” simply identifies an intended purpose or environment in which the method is performed--*e.g.*, in a mobile cell phone network. Indeed, as seen in Section C below, the inventors testified at their depositions that the claimed methods were designed for use in a wireless environment (*e.g.*, for drivers who need hands-free dialing), as opposed to a “static” environment (*e.g.*, sitting at a desk with a land-line phone). The specification echoes this purpose: “There is therefore a need for voice recognition systems for use in the cellular, satellite and personal communications network environments.” ‘966 patent, col. 1 at ll. 37-39. Given this context, “for” means designed for use in a particular environment, not for use by a particular instrumentality at a particular location.

B. The Specification Does Not Limit the Claim

As a matter of law, the claims cannot be confined to preferred embodiments. *Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (“the language that Harris argues should limit claim 1 is clearly found in the ‘904 patent’s description of the preferred embodiment. It is precisely against this type of claim construction that our prior case law counsels”). VST, however, insists on drawing attention away from the claims and to various preferred embodiments in the specification. Compounding its error, VST points to the wrong preferred embodiments. VST points to preferred embodiments of systems and apparatuses (the subjects of other claims not at issue), not to preferred embodiments of the claimed methods.

As seen above, Claims 1-6 are directed to certain speech recognition methods (*i.e.*, a series of steps, such as “receiving,” “determining,” “collecting”). Preferred embodiments of these methods are illustrated in flow charts, such as Figure 6a, showing preferred command protocols. None of these flow charts, however, specifies the location of the voice recognizer or, for that matter, each instrumentality that performs a given step.

Even if the location of the voice recognizer were a part of the preferred embodiment of the claimed methods, that circumstance still would not bind the claims for two reasons. First, inventors need only describe one embodiment of their invention in the specification, not all embodiments that might fall within the claims. Thus, broad claims will not be narrowed even if the specification describes but one embodiment. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004); *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1344 (Fed. Cir. 2001). Second, the specification emphasizes that placing the speech recognizer at the switch “is the preferred embodiment of the invention.” Col. 4, *ll.* 15-16 (emphasis added). VST overlooks this important statement, even though it appears in the very passage that VST relies on as somehow confining Claim 1 to a method in which the recognition occurs at the switch.

The specification of ScanSoft’s ‘966 patent is wholly unlike the specification of VST’s ‘630 patent, which, as argued in ScanSoft’s second *Markman* brief [Docket # 202], defines the terms “pause” and “syllable” and thus narrows the claims. For example, the ‘966 patent contains many references signaling that the switch-based recognition system is merely preferred, including the statement above. In contrast, the ‘630 patent says that a pause “needs” to be and “should be” a minimum of 200 msec. No such words appear in ScanSoft’s ‘966 patent. No passage states that speech recognition “needs to be” or “should be” performed at or near the switch.

Moreover, embodiments disclosed in the specification “cannot be read into the claims without some hook” in the claim wording. *Renishaw PLC v. Marposs Societa' Per Azioni*, 158 F.3d 1243, 1252 (Fed. Cir. 1998). The claims of VST’s ‘630 patent have such a hook, which is that a pause portion must be “at least a syllable in length.” But there is no such “hook” in the claim wording of the ‘966 patent, no words that permit this Court to import the preferred embodiment into the claim. VST is looking to insert new terms into the claim, such as “located at the switch.” But nothing like those words appear in the claim.²

C. The Inventors Explained that the Invention Is Not Confined to the Switch

VST also relies on testimony from the inventors. But the inventors made clear that the invention need not be confined as VST contends. For example, one of the co-inventors, Pete Foster, explained that “[n]o one had ever done--had successfully developed a way to do voice dialing in wireless environments before.” **Exh. 1**, Foster depo. at 20. The “core of it is, you know, voice dialing in this wireless environment.” *Id.* at 26. According to Mr. Foster, performing voice dialing in a mobile environment is different from voice dialing in a “static environment,” meaning a phone on your desk in your office. *Id.* at 117.

² In another example, the ‘966 patent emphasizes that “[t]hese objects should be construed to be merely illustrative . . . Many other beneficial results can be attained by applying the disclosed invention is a different manner.” Col. 2, ll. 25-30 (emphasis added). There is no such wording in the ‘630 patent. And in any event, such cited objects or advantages of the invention do not restrict the claims, unless the specification so requires. *Liebel-Flarsheim*, 358 F.3d at 908. Nor do the Abstract and title restrict the claims, as VST argues. *Id.*; *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1312 (Fed. Cir. 1999) (“the purpose of the title is not to demarcate the precise boundaries of the claimed invention but rather to provide a useful reference tool for future classification purposes”).

VST relies on the *Borg Warner* case (cited at fn. 9 of its *Markman* brief) for the proposition that such broadening statements in the ‘966 patent specification carry no weight. But that proposition from a district court case contradicts Federal Circuit precedent, which recognizes the broadening effect of such statements. *See Rexnord Corp.*, 274 F.3d at 1345. Moreover, VST claims that this proposition appears in footnote 23 in *Borg Warner*, but there is no fn. 23 in that case, and the proposition does not appear anywhere else.

Read in this context, the phrase in Claim 1, “[a] speech recognition method for a mobile telecommunications system,” means that the claimed method is a way of performing voice dialing in a wireless environment, as opposed to voice dialing in a “static environment.” The word “for” does not require that the recognition occur in an apparatus at the switch.

Mr. Foster also made clear that an important aspect of the invention lies in the “human factors,” in the application software, such as the software protocols, commands, and other steps used to improve voice dialing from the user’s perspective. The emphasis of the invention was not on the recognition hardware itself, as VST implies, but rather on the software applications implementing voice dialing. *Id.*, Foster depo. at 21-23, 114-116.

Another co-inventor, Dr. Schalk, confirmed that the patented voice activated dialing methods need not be practiced by an apparatus at the switch. For example:

THE DEPONENT: Well, I think -- unless--I think this patent is more about general characteristics in voice activated dialing. It goes into some of the components of voice activated dialing, whether it’s in the switch or not.

Exh. 2, Schalk depo at p. 168 (emphasis added).

Furthermore, Dr. Schalk explained that, contrary to VST’s argument, there were no technological constraints to embedding the recognition software in the handset of the phone:

. . . The memory requirements to represent what we refer to as a template or a representation of something that someone speaks, like a name, the memory requirements for that were so small, the RAM requirements for an on-board solution, that it was practical to implement that on an on-board, meaning embedded, or off-board.

Id., Schalk depo at 200-201 (emphasis added).

Finally, contrary to VST’s assertion, the inventors made clear that a mobile telecommunications “system” includes the cell phones themselves: “Well, the phone, and like a destination that you’re calling, I mean, that’s all part of the telecommunications system.” *Id.*,

Schalk depo. at 160 (emphasis added). Accordingly, even if VST is correct as to the meaning of “for,” it is not correct that “system” means only the central office switch.³

II. VST IMPROPERLY MAKES A “BACK DOOR” VALIDITY ATTACK

VST cites several prior art references in an attempt to add a limitation (location of the recognizer) to Claims 1-6 that the PTO did not require and that the inventors never used to distinguish the claims during prosecution. Indeed, the prior art reference that the PTO examiner deemed to be the closest--Ishii--has recognition software in the handset. *See* Ballentine Decl. [Docket # 168] at ¶ 61. Even so, the examiner found that Ishii “disclosed a speech recognition method for a telecommunication system.” Exh. 7 to ScanSoft’s opening *Markman* brief [Docket # 167] at p. 00029 (emphasis added). Thus, the PTO itself rejects VST’s interpretation of “for.” The examiner distinguished Ishii based on the types of commands used and did not require the inventors to add a limitation that the voice recognizer is located at or near the switch. That the PTO examiner did not require an amendment shows that the limitation should not be read into the claim. *See Rexnord*, 274 F.3d at 1347.

³ None of the testimony cited by VST supports its proposed claim construction. For example, the inventors were not asked what was meant by the disputed claim terms. Dr. Schalk, made clear that he is “not someone who is in a position from a legal standpoint to interpret some of the [claim] language.” **Exh. 2**, Schalk depo. at 162. Rather, the inventors were being asked about particular figures or passages in the specification (not the claims) or about particular commercial embodiments. Indeed, the Foster testimony that VST cites (starting at p. 24 of VST’s *Markman* brief) does not concern Mr. Foster’s interpretation of the claims but rather concerns a particular commercial product that Foster’s company, Voice Control Systems, was then developing for a company called McCaw Cellular. VST leaves out the question that initiated the cited testimony. *See* Foster depo. at 117-118 (“So I guess the question that I was asking but didn’t ask very well was before you first approached McCaw . . .”). The subsequent testimony is thus specifically discussing the McCaw project, not the ‘966 patent. As a matter of law, it is improper to construe claims by reference to the patentee’s commercial embodiment. *SRI Int’l v. Matsushita Elec. Corp. of America*, 775 F.2d 1107, 1121 (Fed. Cir. 1985).

As seen in Section III, Claim 1 of the '966 patent requires what is now known as "smart dialing," which refers to programmed intelligence that automatically determines, without additional prompting or signals, when the user has spoken the last digit of the telephone number to be dialed. The prior art cited by VST does not have this "smart dialing" intelligence. For example, as seen in the Uniden/VoiceDial reference, the user must say "*End*" after speaking the last digit. See Exh. 9 to ScanSoft's opening *Markman* brief at p. 04321. Claim 1 of the '966 patent, however, does not require this additional command because the intelligent system already knows when the last digit in the expected string has been entered.

Given that the claimed methods are distinguishable in other ways, VST's arguments about the prior art are really veiled attacks on validity that are improper during claim construction. *Kearns v. Chrysler Corp.*, 32 F.3d 1541, 1547 (Fed. Cir. 1994) ("Chrysler's attempts to offer such evidence constituted a disguised 'back door' attack on the validity of the patents"); *Bendix Corp. v. United States*, 600 F.2d 1364, 1373 (Ct. Cl. 1979) ("camouflaged or back-handed attack . . . on validity" while construing claims should not be allowed).

III. "COLLECTING DIGITS . . ." REFERS TO SMART DIALING

The step of "collecting digits representing a telephone number" means what it says. The digits must be a telephone number, not, as VST argues, simply a string of digits. The method uses the system's intelligence to detect when the user has spoken the telephone number. Contrary to VST's argument, this step is illustrated in the specification: "A test is then made at step 148 to determine if the digit collected is the last digit expected in the string . . ." '966 patent, col. 7 at ll. 5-7. As Mr. Balentine explained, a "last expected digit" algorithm is used to detect the complete telephone number. Balentine Decl. [Docket # 168] at ¶ 71.

At their depositions, the inventors spoke of the “human factors” (the user-friendly command structure designed to reduce recognition errors) that are part of the design of the invention and that, in part, distinguish the prior art. For example, Mr. Foster testified that one of the “crown jewels” of the patented method is the application intelligence. **Exh. 1**, Foster depo. at 114-116. One feature of that intelligence concerns collecting digits. As Mr. Foster explained, using intelligence to check when a telephone number has been spoken improves recognition:

. . . And when I say application, let me back it up. Like collecting digits. That is an application, sort of a sub-application or--and you have to learn how to collect digits in a user's desire to use them in a certain way. For example, you can collect credit card digits in one way. If you're collecting a telephone number, you can do it another way. And it's--this is where what I was describing as the application really comes into play. In a credit card number, there's a check sum. And so if you use the intelligence that's outside of the recognizer or if you use this check sum information, you can greatly improve the recognition, apparent recognition accuracy.

Id., Foster depo. at 115-116; *see also* 121 (“. . . we had to learn things about how people spoke digits in a digit string and build intelligence around the recognizer to interface with people”). VST has overlooked this evidence.

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